

Fourth Semester B. Sc. Examination

BIOCHEMISTRY

Paper - II

(Biophysical and Biochemical Techniques)

Time : Three Hours

[Max. Marks : 50]

N. B. : (1) All questions are compulsory.
 (2) All questions carry equal marks.
 (3) Draw diagram wherever necessary.

1. What is electrophoresis ? Describe in detail factors affecting electrophoretic mobility.

OR

Describe the technique of Gel electrophoresis with its applications. 10

2. Discuss in detail SDS-PAGE electrophoresis. 10

OR

Write note on :—

(a) Immunoelectrophoresis.
 (b) ELISA. 10

3. Write the principle and working of G. M. counter with its advantages and disadvantages.

Describe the principle of tracer techniques. Add a note on its advantages and limitations. 10

4. Write short note on :—

- (a) High speed centrifugation. 5
- (b) Ultracentrifugation. 5

OR

- (c) ISO-pycnic centrifugation. 5
- (d) Rate zonal centrifugation. 5

5. Answer any ten questions of the following :—

- (I) What is RCF ?
- (II) What is rpm ?
- (III) What is Isoelectric focussing ?
- (IV) Name any two gels used in gel-electrophoresis.
- (V) What is meant by isotope dilution ?
- (VI) What do you mean by autoradiograph ?
- (VII) Define Svedberg unit.
- (VIII) Define a curie.
- (IX) What is meant by ampholyte ?
- (X) Name any two solubaliser used in electrophoresis.
- (XI) What is meant by Immunodiffusion ?
- (XII) Give any one applications of High Voltage Electrophoresis. 1x10=10